

Claims

What is claimed is:

- 1 1. A method for implementing multiple signals probing of a
2 printed circuit board comprising the steps of:
3 forming a probe structure on an outside surface of the printed circuit
4 board;
5 electrically connecting a resistor with a predefined via associated with
6 a signal to be monitored; and
7 defining a path to a predefined probe location for monitoring said
8 signal from said resistor using said probe structure.
- 1 2. A method for implementing multiple signals probing as recited
2 in claim 1 wherein the step of forming said probe structure includes the step
3 of forming a pattern of a plurality of spaced apart stubs to define said probe
4 structure on said outside surface of the printed circuit board.
- 1 3. A method for implementing multiple signals probing as recited
2 in claim 2 wherein the step of forming said pattern of said plurality of stubs
3 includes the step of etching an electrically conductive material in said
4 pattern of said plurality of stubs to define said probe structure on said
5 outside surface of the printed circuit board, each stub including an
6 elongated portion extending from at least one pad.
- 1 4. A method for implementing multiple signals probing as recited
2 in claim 3 wherein said electrically conductive material includes copper.
- 1 5. A method for implementing multiple signals probing as recited
2 in claim 3 wherein the step of electrically connecting said resistor includes
3 the step of placing said resistor between said predefined via associated with
4 said signal to be monitored and said pad of an adjacent one of said plurality
5 of stubs of said probe structure.

1 6. A method for implementing multiple signals probing as recited
2 in claim 3 wherein the step of defining said path to said predefined probe
3 location for monitoring said signal from said resistor using said probe
4 structure includes the steps of placing zero-ohm shorts between selected
5 ones of said plurality of stubs of said probe structure.

1 7. A method for implementing multiple signals probing as recited
2 in claim 1 wherein said resistor has a selected high resistance value relative
3 to a characteristic impedance of the printed circuit board at said predefined
4 via associated with said signal to be monitored.

1 8. A method for implementing multiple signals probing as recited
2 in claim 1 includes the steps of removing said resistor and said path after
3 testing is completed.

1 9. Apparatus for implementing multiple signals probing of a
2 printed circuit board comprising:
3 a probe structure formed on an outside surface of the printed circuit
4 board;
5 a resistor electrically connected with a predefined via associated with
6 a signal to be monitored; and
7 a path defined to a predefined probe location for monitoring said
8 signal from said resistor using said probe structure.

1 10. Apparatus for implementing multiple signals probing as recited
2 in claim 9 wherein said probe structure includes an electrically conductive
3 material forming a pattern of a plurality of spaced apart stubs defining said
4 probe structure on said outside surface of the printed circuit board, each
5 stub including an elongated portion extending from at least one pad.

1 11. Apparatus for implementing multiple signals probing as recited
2 in claim 10 wherein said path is formed by electrically shorting between said
3 pads of selected ones of said plurality of spaced apart stubs.

1 12. Apparatus for implementing multiple signals probing as recited
2 in claim 9 wherein said resistor and said path are removed after testing is
3 completed.

1 13. Apparatus for implementing multiple signals probing as recited
2 in claim 9 wherein said probe structure formed on said outside surface of the
3 printed circuit board includes an electrically conductive material etched to
4 define a grid of a plurality of spaced apart stubs defining said probe
5 structure.

1 14. Apparatus for implementing multiple signals probing as recited
2 in claim 13 wherein said electrically conductive material is copper.

1 15. Apparatus for implementing multiple signals probing as recited
2 in claim 9 wherein said resistor has a selected high resistance value relative
3 to a characteristic impedance of the printed circuit board at said predefined
4 via associated with said signal to be monitored.